UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/790,423	KHARITIDI ET AL.
	Examiner	Art Unit	
	Philip Wang	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>9/27/2007</u>.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-31* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-31* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____.

         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

Detail Action

Detailed Action

1.   This office action is in response to the amendment filed on 9/27/2007.

2.   The objections to claims 2-9, 11, 12, 14-23, and 25-31 have been withdrawn in view of the Applicant's amendment to the claims.

3.   The 35 USC § 112 2nd paragraph rejections of claims 13-31 have been withdrawn in view of the Applicant's amendment to the claims.

4.   The Specification has been amended and entered.

5.   Claims 1-31 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-4, 9-15, 20-22, 24-26, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brook (US PGPub. No. 2002/0038320) in view of Lim et al. (PGPub. No.: US 200410064826 A1).

As per claim 1,

Brooks discloses

- an act of identifying at least two XML schema types for which equivalence

is to be determined, each of the at least two XML schema types having at

least one schema component that can be presented differently in

equivalent XML schema types;

- a step for determining equivalence of the at least two XML schema types;

(see claims 1 and 10, where determining a type of the

element and a type of the other element and

determining the type(s) are equivalent is disclosed.)

Brooks does not specifically disclose

- a step for normalizing each of the identified XML schema types;

However, Lim et al. disclose

- a step for normalizing each of the identified XML schema types ([0062],

"As depicted in FIG. 2, the object generator is

started 2, and an XML Schema file is inputted 4.

Because there are various ways to represent equivalent

data models in XML Schema, the schema is normalized 6

to provide an internally standardized representation

of the data model.");

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to incorporate the teachings of Lim et al. into the teachings of

Brooks to include normalizing each of the identified XML schema types. The

modification would be obvious to one of ordinary skill in the art to want to share data

with another application as suggested by Lim et al. (see [0014], lines 4-5).

As per claim 2,

 the rejection of claim 1 is incorporated,

Brooks disclose

-   wherein the step for determining equivalence includes creating and

    comparing hash numbers of the at least two normalized XML schema

    types([0013], "...using the hash representation...").

As per claim 3,

 the rejection of claim 1 is incorporated,

Brooks discloses

-   wherein the act of identifying the XML schema types includes identifying

    XML schema types having the same qname([0006], shows tagged

    name, which is qname.).

As per claim 4,

 the rejection of claim 1 is incorporated,

Brooks does not specifically disclose

-   wherein the step for normalizing each of the XML schema types includes

    writing the at least one schema component in each of the at least two XML

schema types according to a unified format and prior to determining

equivalence.

However, Lim et al. disclose

- wherein the step for normalizing each of the XML schema types includes

writing the at least one schema component in each of the at least two XML

schema types according to a unified format and prior to determining

equivalence([0062], "**As** depicted in **FIG. 2,** the object

generator is started **2,** and an XML Schema file is

inputted **4.** Because there are various ways to

represent equivalent data models in XML Schema, the

schema is normalized **6** to provide an internally

standardized representation of the data model." By

normalization, a unified format is used prior to

determining equivalence.).

As per claim 9,

the rejection of claim 1 is incorporated,

Brooks does not specifically disclose

- upon determining equivalence, creating a single class that is used

interchangeably for each equivalent XML schema type.

Lim et al. disclose

- upon determining equivalence, creating a single class that is used

  interchangeably for each equivalent XML schema type ([0056],

  "...compiling a data model specification such as XML

  schema into code...").

As per claims 10, 11, and 12,

- they are the computer program product claims corresponding to method

  claims 1, 2 and 4 respectively and are rejected for the same reason set

  forth in connection of the rejection of claims 1, 2 and 4 above.

As per claim 13,

Brooks discloses

- an act of identifying at least two XML schema types for which equivalence

  is to be determined, each of the at least two XML schema types having at

  least one schema component that can be presented differently in

  equivalent XML schema types;

- an act of comparing the at least two XML schema types; an act of

  generating a hash number for each of the at least two XML schema types

  (see claims 1 and 10, where determining a type of the

element and a type of the other element and

determining the type(s) are equivalent is disclosed.);

- an act of generating a hash number for each of the at least two XML

schema types([0013], "...using the hash representation...").

Brooks does not specifically disclose

- · an act of writing the at least one schema component in each of at least

two XML schema types according to a custom format resulting in at least

two normalized XML schema types;

- an act of comparing the at least two normalized XML schema types;

However, Lim et al. disclose

- an act of writing the at least one schema component in each of at least

two XML schema types according to a custom format resulting in at least

two normalized XML schema types([0062], "**As** depicted in **FIG.**

2, the object generator is·started **2,** and an XML

Schema file is inputted **4**. Because there are various

ways to represent equivalent data models in XML

Schema, the schema is normalized **6** to provide an

internally standardized representation of the data

model." By normalization, a unified format is used

prior to determining equivalence.);

- an act of comparing the at least two normalized XML schema types(see

above shown normalization of schema);

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to incorporate the teachings of Lim et al. into the teachings of

Brooks to include the above limitations supported by Lim et al. The modification would

be obvious to one of ordinary skill in the art to want to share data with another

application as suggested by Lim et al. (see [0014], lines 4-5).

As per claim 14,

 the rejection of claim 13 is incorporated,

Brooks discloses

> - wherein the act of identifying the XML schema types includes identifying
>
>   XML schema types having the same qname([0006], shows tagged
>
>   name, which is qname.).

As per claim 15,

 the rejection of claim 13 is incorporated,

Lim et al. disclose

> - wherein writing the at least one schema component includes rewriting an
>
>   existing schema component into a new format([0062], "As depicted
>
>   in FIG. 2, the object generator is started 2, and an
>
>   XML Schema file is inputted 4. Because there are
>
>   various ways to represent equivalent data models in
>
>   XML Schema, the schema is normalized 6 to provide an

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internally standardized representation of the data

model.").
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As per claim 20,

- it recite the same limitations of claim 9 and is rejected for the same reason set

    forth for the rejection of claim 9 above.

As per claim 21,

the rejection of claim 13 is incorporated,

Lim et al. disclose

- wherein the at least one component is a schema particle definition (The

    examiner asserts that a schema particle definition as component is part of

    W3C recommendation. See http://www.w3.org/TR/2001/REC-xmlschema-

    1-20010502/#cParticles, section 3.9).

As per claim 22,

the rejection of claim 13 is incorporated,

Lim et al. disclose

- wherein the at least one component is a schema attribute (The examiner

    asserts that a schema particle definition as component is part of W3C

    recommendation. See http://www.w3.org/TR/2001/REC-xmlschema-1-

    20010502/#cParticles, see section 3.2, 3.3).

As per claims 24 and 25,

- they are the computer program product claims corresponding to method claims 13 and 14 respectively and are rejected for the same reason set forth in connection of the rejection of claims are the computer program product claims corresponding to method claims 13 and 14 above.

As per claims 26, 31,

- they are the computer program product claims corresponding to method claims 15 and 20 respectively and are rejected for the same reason set forth in connection of the rejection of claims 15 and 20 above.

7.   Claims 5-8, 16-19, 23, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brook (US PGPub. No. 2002/0038320) in view of Lim et al. (PGPub. No.: US 200410064826 A1) and further in view of Seyrat et al. (US PGPub. No. 2004/0054692).

As per claim 5,

the rejection of claim 4 is incorporated,

Brook and Lime et al. do not specifically disclose

- wherein writing the at least one schema component includes altering an

   order of at least two schema components within a single XML schema

   type.

However, Seyrat et al. discloses

- wherein writing the at least one schema component includes altering an

   order of at least two schema components within a single XML schema

   type([0050], "...normalizing...so as to obtain a single

   predefined order of the components of the schema.").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to incorporate the teachings of Seyrat et al. into the teachings

of Brook and Lime et al. to include altering an order of at least two schema components

within a single XML schema type. The modification would be obvious to one of ordinary

skill in the art to want to improve efficiency of a system as suggested by Seyrat et

al.(see [0008]).

As per claim 6,

 the rejection of claim 5 is incorporated,

Brook and Lime et al. do not specifically disclose

- wherein altering the order includes placing the at least two schema

   components into alphabetical order

However, Seyrat et al. discloses

- wherein altering the order includes placing the at least two schema

    components into alphabetical order ([0136], "...may be

    alphanumeric oerder...".).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to incorporate the teachings of Seyrat et al. into the teachings

of Brook and Lime et al. to include altering the order includes placing the at least two

schema components into alphabetical order. The modification would be obvious to one

of ordinary skill in the art to want to improve efficiency of a system as suggested by

Seyrat et al.(see [0008]).

As per claim 7,

the rejection of claim 5 is incorporated,

Brook and Lime et al. do not specifically disclose

- wherein prior to altering the order, it is determined that the order of the at

    least two schema components is discretionary

However, Seyrat et al. discloses

- wherein prior to altering the order, it is determined that the order of the at

    least two schema components is discretionary ([0050],

    "...normalizing...so as to obtain a single predefined

    order of the components of the schema." Since

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components of a schema will be arranged in a

predefined order, its original order is

discretionary.).
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Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to incorporate the teachings of Seyrat et al. into the teachings

of Brook and Lime et al. to include wherein prior to altering the order, it is determined

that the order of the at least two schema components is discretionary. The modification

would be obvious to one of ordinary skill in the art to want to improve efficiency of a

system as suggested by Seyrat et al.(see [0008]).

As per claim 8,

 the rejection of claim 4 is incorporated,

Brook and Lime et al. do not specifically disclose ·

- wherein the at least one component is a discretionary component that is
  not explicitly recited in at least one of the XML schema types, and wherein
  writing the at least one schema component includes writing the at least
  one schema component for a first time.

However, Seyrat et al.discloses

- wherein the at least one component is a discretionary component that is
  not explicitly recited in at least one of the XML schema types, and wherein
  writing the at least one schema component includes writing the at least

one schema component for a first time (`[0209], "…these elements being optional…"; `).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Seyrat et al. into the teachings of Brook and Lime et al. to include wherein the at least one component is a discretionary component that is not explicitly recited in at least one of the XML schema types, and wherein writing the at least one schema component includes writing the at least one schema component for a first time. The modification would be obvious to one of ordinary skill in the art to want to improve efficiency of a system as suggested by Seyrat et al.(see [0008]).

As per claim 16,

the rejection of claim 13 is incorporated,

Brook and Lime et al. do not specifically disclose

- wherein writing the at least one schema component includes writing a discretionary component into at least one of the XML schema types.

However, Seyrat et al. discloses

- wherein writing the at least one schema component includes writing a discretionary component into at least one of the XML schema types (`[0209], "…these elements being optional…"; `).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Seyrat et al. into the teachings of Brook and Lime et al. to include writing the at least one schema component includes writing a discretionary component into at least one of the XML schema types. The modification would be obvious to one of ordinary skill in the art to want to improve efficiency of a system as suggested by Seyrat et al.(see [0008]).

As per claims 17-19,

- they recite the same limitations of claims 5-7 respectively and are rejected for the same reasons set forth for the rejections of claims 5-7 above.

As per claim 23,

the rejection of claim 13 is incorporated,

Brook and Lime et al. do not specifically disclose

- wherein the at least one component is at least one of a child and a sub-child of a named type .

However, Seyrat et al. discloses

- wherein the at least one component is at least one of a child and a sub-child of a named type ([0018] , "... sub-types of at least one type...") .

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Seyrat et al. into the teachings of Brook and Lime et al. to include wherein the at least one component is at least one

of a child and a sub-child of a named type. The modification would be obvious to one of

ordinary skill in the art to want to improve efficiency of a system as suggested by Seyrat

et al.(see [0008]).

As per claims 27-30,

- they are the computer program product claims corresponding to method

claims 16-19 respectively and are rejected for the same reason set forth in

connection of the rejection of claims are the computer program product

claims corresponding to method claims 16-19 above.

Response to Arguments

8.   Applicant's arguments with respect to claims 1-31 have been considered but are

moot in view of the new ground(s) of rejection.

The Applicant indicated there was a proposal presented during the telephone call of August 8,

2007. The examiner does not recall such phone call or proposal on August 8, 2007. The

examiner recalls the Applicant attempted to schedule a phone interview and due to scheduling

conflict, the attempted phone interview did not occur.

The "Application No." appearing at the top of amendment should be "10/790,423" instead of

"10/790.432".

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00AM - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be

obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WEI ZHEN
SUPERVISORY PATENT EXAMINER